

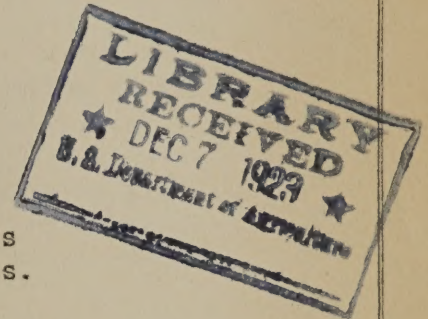
COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS

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POULTRY FLOCK CERTIFICATION

Excerpts from 1922 Annual Reports
of State and County Extension Agents.



This circular is one of a series issued
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California

The Sonoma County Farm Bureau's accredited hatchery project completed its first year November 1, 1922. At the outset the accredited hatchery project gained some disfavor due to the misunderstanding of its operation. It was a large economic project and at the same time somewhat revolutionary and dictatorial as to stock and management, with the result that some poultrymen did not receive it favorably. However, the plan has steadily grown in strength and popularity and is now a fixed institution in the poultry industry of Sonoma County. All interests are now combined in supporting the accredited hatchery plan and lauding it as an institution having an enormous influence in improving the poultry industry. Since the inauguration of the plan some additional improvements have been made, as limitations were indicated in its operation. The first of these provides that a copy of all advertising material which is to be sent out for publication by any accredited hatchery must first be submitted to the inspector for his approval of the wording in the advertisement. The obvious reason for this action is that it will prevent the issuance of any misleading advertising of accredited poultry stock.

* No attempt is made to cite all references to poultry flock certification in this circular. Only selected extracts showing typical methods employed and results secured in some States are included. Owing to differences in terminology used in the various States and to other local conditions the information contained in this circular should be reviewed by the State subject-matter specialist concerned before incorporating any part of it in the extension plans for the State.

Another addition provides for the official recognition and accrediting of higher grades of chicks or those with higher production pedigrees. The grades of chicks which are now provided for in the agreement are as follows:

- (1) Accredited A grade - Chicks coming from flocks meeting the demands of the accredited hatchery plan, from cockerels with an egg record of 175 eggs or over on the dam's side.
- (2) Accredited AA grade - Chicks hatched from eggs of flocks which have met the accredited hatchery requirements for the 1922-23 season; whose cockerels have an egg production record by both the dam and the sire's dam of 200 eggs or over, and in addition have been culled under the direct supervision of some one approved by the accredited hatchery inspector.
- (3) Accredited AAA grade - Chicks hatched from eggs of flocks meeting the accredited hatchery requirements of the season 1922-23; which are from cockerels with production records of both dam and sire's dam of 250 eggs or over, and in addition have been closely culled under the supervision of some one approved by the accredited hatchery inspector.

The production and sale of AA and AAA grades is entirely optional with the hatching egg producers and the hatcheries. The hatcheries pay for the extra inspection service and other expenses incident to the accrediting of the higher grades of chicks.

The proper operation of the original agreement receives the first consideration of the inspector, the accredited hatcheries, and the poultry department, but the importance of the encouragement and official recognition of the production of the higher grades of chicks is fully recognized. Beginning this season, two hatcheries on the accredited list will produce only AA grade chicks, while two others will produce AA grade chicks in addition to A grade. The poultry department of the Sonoma County Farm Bureau this year will issue to each of the hatcheries on the accredited hatchery list a certification of membership in the accredited hatchery project. These certificates will be filled in by the inspector and will state the grade of chicks which are being produced by each particular hatchery. In the cases of AA and AAA chicks the sources of hatching eggs for these higher grades will be given.

The local extension office has cooperated in giving publicity to the accredited hatchery reports, lists of which have been issued once each month during the year. In all, 16 articles and news items on the accredited hatchery project have been given to agricultural magazines and local papers. In addition, 43 letters have been written as a result of requests for information, giving the details of the project. These letters have gone to various parts of the State of California, the United States, and even Canada. Representatives of the agricultural extension service have met with the executive committee of the poultry department of the Sonoma County Farm Bureau 15 times during the year to advise them on matters concerning the accredited hatchery project. When the plan was first proposed, 13 hatcheries with a combined capacity of 1,200,000 eggs signed the agreement. However, the accredited hatchery list has grown during the year so that now there are 19 hatcheries on the list. These have a combined capacity of 1,451,000 eggs every 3 weeks. - B. H. Crocheron, Director of Extension Service, College of Agriculture, University of California, Berkeley.

Connecticut

A small amount of time has been spent in getting men interested in certification and testing of poultry. A flock is certified when some representative from the college has gone through the flock of breeders and weeded out all low producers, in order to select for breeding stock those hens which will produce 180 eggs or over per year. A flock is tested when each hen in the breeding flock has had a blood sample drawn and this has been tested at the experiment station for white diarrhea. If reactors are found they are removed. To date four poultrymen in the county have had their flocks certified and tested. - H. L. Johnson, County Agent, Norwich, New London County.

Kansas

Poultry certification has been undertaken to a limited extent with the object of increasing the number of flocks certified this fall. Eleven flocks were certified by N. L. Harris, specialist, with grades from B- to B. Four other flocks were to be certified, but weather and roads were so bad that action was postponed. One flock in the county where the hens are trap-nested, has shown remarkable laying qualities; a hen laid 226 eggs in 11 months, and 3 others had records of over 200 eggs in a year. All this year's birds are pedigreed, and the cockerels kept for sale are from the four highest-producing hens. - S. J. Patton, Home Demonstration Agent, Columbus, Cherokee County.

Coffey County was one of the first counties in the State to take advantage of the opportunity offered by the agricultural college for having purebred flocks certified. A certified flock is one in which all of the birds have been examined and banded by a representative of the poultry extension department of the Kansas State Agricultural College. A person having a certified flock will not be allowed to keep anything but certified roosters on the farm. Non-certified hens may be kept on the place for laying purposes but must be kept separate from the certified hens during the breeding season. The requirements for certified flocks will be somewhat more strict next year than this year. All owners of certified flocks will be required to keep a record of the cost and production of their flocks. The Coffey County farm agent foresaw that this requirement would be made for work of certification and provided the poultry raisers with blanks and instructions for keeping this record in the past year. The records of most of the Coffey County flocks are now at the office of the county agent. This puts the poultry raisers of this county almost a year ahead of many other counties in the work of certified flocks. - C. R. Jaccard, County Agent, Burlington, Coffey County.

Our poultry flock improvement work was very successful. Fifty-seven flocks were certified. Each flock certified was examined, and all individuals deficient in type, color, markings, conformation, and laying capacity were thrown out. They were then given the grade they merited. The certifying work not only was an aid in bettering the quality of our poultry but was a great money-maker for the certified flock owners. Those whose flocks were

graded high had so many requests for eggs that they could not fill all of their orders for at least three months. Everyone wanted to get eggs from these good flocks. Everywhere I go this fall I find a few good pullets and cockerels from one of these flocks. In the spring of 1923, at least 35 per cent of our farmers expect to have breeding pens in which they will place cockerels or pullets or both from one of our certified flocks. - Paul B. Gwin, County Agent, Council Grove, Morris County.

Massachusetts

At the annual poultry convention this year a proposal was made to form a Massachusetts Association of Certified Poultry Breeders. The primary purposes of the proposed organization will be:

- (1) To provide reliable sources of superior breeding stock, day-old chicks, and hatching eggs for poultry producers.
- (2) To designate certain flocks as sources of superior stock, protect them from unfair competition, and thus serve as a stimulus to a breeding industry which will make Massachusetts noted as a reliable source of healthy production and exhibition-bred poultry stock.

The biological needs of the industry are qualifications for admission to this association. The extension poultryman believes that such an organization will give support and stimulus to the basic extension project and that sufficient progress has been made in establishing flocks having these qualifications to warrant its formation at this time. Further development of this scheme rests with a committee composed of 10 representatives of the various phases of the poultry industry, including myself. The tentative plan is to perfect the details of organization, but to delay a season in starting the actual certification work, since a number of poultry breeders who desire membership have minor disqualifications at present. One season of preparation will enable them to qualify. - William C. Monahan, Extension Poultryman, Massachusetts Agricultural College, Amherst.

Minnesota

Because of the fact that many commercial hatcheries have been flooding the county with sickly, nondescript, day-old chicks of unknown egg production, we have started a project to certify breeding flocks in St. Louis County for production and health. Egg and feed records must be kept, and by monthly inspections we hope to keep flocks free from all infectious and contagious diseases. It will take a year to do this, and we wish to examine at least one crop of young chicks for bacillary diarrhea which can only be satisfactorily diagnosed when they are a few days old. If the plan succeeds we hope it can be adopted by the rest of the State for the protection of the purchaser as well as of the legitimate breeder who takes pains and keeps his flock well culled and in good condition. At present we have 8 flocks under process of certification. Others will be certified as soon as time permits. - August Neubauer, County Agent, Virginia, North St. Louis County.

Missouri

As one phase of the demonstration flock project, in an effort to secure more attention to the problem of breeding for high egg production in Missouri, a plan of poultry certification has been carried on during the last two years. Only flocks that have been handled for at least one year as a demonstration flock and show a winter egg production of at least 25 eggs per hen are eligible for certification. These flock owners whose birds are eligible and who desire to take up certification sign a definite contract agreeing to breed only from hens which are selected and banded by the extension poultryman from the university, and to mate these hens with cockerels which are pedigreed from hens having a reliable trap nest record of more than 200 eggs in one year. During September and October, poultry specialists from the university visit the farms of the cooperators who sign the certified breeding contract and mark with a sealed leg band those hens which are conspicuously high producers and are free from standard disqualifications. The flock is again visited the following September or October; the cockerels raised from certified stock are carefully inspected, and those that are vigorous and free from standard disqualifications are marked in the wing with a sealed certified band. On 100 farms, 1,242 certified cockerels were banded during September and October, 1922.

Fifty-one new farms were enrolled for certified breeding during the year, and 6,490 hens were certified on the 151 farms carrying on certified breeding. On 25 of the farms carrying on certified work the hens were trap-nested, and cockerels were available from the hens that had laid over 200 eggs during the year. The demonstration flock contest and poultry certification are proving so popular that more than 900 demonstration flock cooperators have been enrolled for the year beginning November 1, 1922. That the certified breeding stock is making good in egg production is shown by the fact that demonstration flocks containing certified pullets averaged 30 eggs per hen from November 1, 1921, to March 1, 1922, while other demonstration flocks averaged only 24 eggs. This shows 25 per cent greater production during the winter months from flocks containing certified pullets.- T. S. Townsley, Extension Poultryman, College of Agriculture, University of Missouri, Columbia.

Nebraska

The object of the accredited farm flock work is to increase economic poultry production through the formation of flocks of known performance. All accredited flocks must conform to the following requirements:

- (1) All hens that show (a) a markedly inferior egg production, (b) lack of breed characteristics, (c) disease, or (d) inferior size, must be culled before November 1, each year.
- (2) Flocks must have 50 or more producing birds, standardbred within the breed and variety.
- (3) Flocks must have an average production of 85 eggs the first year; 100 eggs the second year; 115 eggs the third year; 135 eggs the fourth year; and 150 eggs the fifth year.
- (4) Males used in breeding shall conform to the breed characteristics and have egg production blood lines representing not less than 125 eggs the first year; 150 eggs the second year; and 200 eggs the third, fourth, and fifth years.

- (5) Hens shall be fed for egg production.
- (6) Management of the flock shall be such as to create most favorable environment.

These flocks are used for demonstration purposes, the principal work covered being standardization, proper housing and arrangement of equipment, culling, mating, selection of better sires, sanitation, and disease control. The following is a summary of the 131 flocks finishing the first year's work in this project:

Farms beginning the project, Nov. 1, 1921.....	270
Farms finishing the project, Oct. 31, 1922.....	201
Percentage of farms finishing the project.....	74
Hens at beginning of project.....	42,265
Hens at end of project.....	28,876
Hens culled out as unprofitable:	
Light breeds (38 per cent).....	5,484
Heavy breeds (62 per cent).....	9,042
Average number of hens per farm at close of project.....	133
Eggs produced during year.....	3,050,570
Average number of eggs per hen.....	133.5
Dozens of eggs produced.....	254,214
Cases of eggs produced.....	8,473
Carloads (400 cases each) of eggs produced.....	21.1

Statement of Receipts and Expenses

Receipts from sale of eggs and fowls:

Eggs at \$0.25 per dozen.....	\$63,553.50
Receipts per farm from eggs - \$316.18	
Sale of 15,389 fowls.....	10,050.00
Total receipts.....	\$73,603.50

Expenses of feeding:

5,847 light hens at \$0.36 per hen.....	5,613.12
9,542 heavy hens at \$1.03 per hen.....	9,828.26
Total feeding cost.....	\$15,441.38
Net income (no allowances made for labor).....	\$58,162.12
Net income per hen - \$2.16	

- W. H. Brokaw, Director of Extension Service, College of Agriculture, University of Nebraska, Lincoln.

The accredited farm flock project has proved to be a popular one. This is one project which brings applications for help from the best poultry breeders. Last fall, 32 cooperators started keeping poultry records; 23 flocks finished, and 21 of these were certified. In all, 49 breeding pens were mated in January for these breeders and a few others. As the result of a general poultry tour in July we can now report the presence of 32 Nebraska type poultry houses in Clay County. Each of the accredited flocks was inspected in November by H. M. Wells, and 29 show cockerels were accredited and banded. On the 1st of November, 39 cooperators started to keep records of their flocks for the coming year. We classify the accredited flocks as follows:

Number of flocks	:	Type of house	:	Number of years' culling	:	Number of eggs bred per hen
9	:	Nebraska	:	1 or more	:	129.6
7	:	Fairly good	:	do.	:	106
3	:	Poor	:	do.	:	102
2	:	Poor	:	none	:	96.7

- J. H. Claybaugh, County Agent, Clay Center, Clay County.

Through the accredited farm flock project, started November 1, 1921, excellent results have been obtained in arousing interest in raising the standard and egg-laying qualities of the poultry flocks. Eighteen cooperators who enrolled in the project have kept records for the year. Twelve of the 18 flocks met all requirements and have been accredited. The 12 cooperators have begun the second year of the project, and 8 including 3 who could not be accredited are enrolled in the first year project. Two visits by the poultry specialist and the county agent were made to the accredited flock cooperators during the year. Special pens were mated for 10 of them early last spring. This fall 110 cockerels were inspected and registered on the 12 farms. Seven pedigreed cockerels have been ordered by 5 of the cooperators for use in improving standard and egg-laying qualities.

- Earl G. Maxwell, Omaha, Douglas County.

Twelve accredited flocks of poultry were registered at the beginning of the year, but on account of disease, two dropped out in the spring. The other 10, however, completed the work and all of these produced the required number of eggs the first year. Nine of these flocks have registered for second year work, and 7 new ones registered and began the work November 1. The accredited flock owners were all given assistance with mating work, housing, culling, feeding, and management. In every case where suggestions were made relative to housing conditions, the suggestions were acted upon and the desired results obtained. In all, 5 of the accredited flock cooperators remodeled their poultry houses to secure better ventilation, and one new poultry house was built. All the cooperators kept breeding pens, and this coming year's production should show some increase. Two of the cooperators entered eggs in the Nebraska egg show last June. Mrs. Clark Peterson who has a flock of White Leghorns won first prize and sweepstakes with her eggs. This resulted in stimulating interest in the production of eggs of better quality. In conducting this accredited flock work, considerable publicity has been given it in the local papers and through the Farm Bureau News which is mailed to all farmers once a month. - Lee W. Thompson, County Agent, Geneva, Fillmore County.

The work of one of our best cooperators is worthy of mention. In the accredited flock project, over 200 of her hens averaged 138 eggs each. Her gross income from chickens, eggs, baby chicks, broilers, and the like amounted to \$1,556. Her expenses were about \$550, leaving a profit of \$1,000 for her year's work. Considering the amount invested, her returns far exceed those of her husband from his various farming operations. - C. H. Grau, County Agent, Ogallala, Keith County.

The accredited flock project has had important results in Thayer County this year. Thirty-one cooperators started the work last November, and 25 finished the year's work. All but one completing the year's work made the required 85-egg average. Twelve monthly reports and one yearly report have been made. About 500 copies a month of this accredited flock report have been sent out to cooperators, extension workers, and poultrymen. These monthly and annual reports contain many valuable lessons for those who will study them. The cooperators have learned to care for their flocks better as a result of this work. The returns have been greater than were expected.

The final summary shows that the 25 flocks completing the work contained an average of 3,549 hens. They laid 491,401 eggs or an average of 138.46 per hen during the year. The egg sales amounted to \$10,030.04; the stock sales to \$3,192.04; and the total sales to \$13,222.08. The feed cost was \$2,480.32. This does not include the feed picked up around the farmyard, which if purchased would have increased the cost of keeping the hens considerably. One large flock was kept on a 10-acre farm, and all feed was purchased. This flock showed a feed cost of \$1.07 per hen, although the average cost was 70 cents per hen. The net returns from the 25 flocks was \$10,741.76 above the cost of feed or \$3.05 per hen. The return from the best flock was \$5.52 per hen and from the poorest flock 67 cents per hen. We note that the light breeds averaged 148 eggs per hen and the heavy breeds 121. This is an average of 27 eggs in favor of the light breeds. In stock sales, the light breeds made an average of 64 cents per hen and the heavy breeds \$1.39 per hen. As young stock was sold from the farm as well as mature stock and breeding stock, the stock sales are not exactly comparable for the two groups. We find that also 54.09 per cent of the heavy breeds were marketed during the year, while only 37.53 per cent of the light breeds were sold. Due to these facts the returns for the year favored the heavy breeds. They returned a total of \$3.19 per hen above feed cost and the light breeds \$2.94 per hen.

The yearly report also shows the standing of the different breeds and individual flocks. Early in the spring C. T. Cornman, extension poultryman of the agricultural college, assisted our accredited flock owners in mating their breeding hens. Many of the owners also purchased cockerels whose dams were high producers with trap-nest records, in many cases, of 200 eggs or more. As a result of attention given to improved methods in breeding, these flock owners have made a great improvement in their flocks in standard requirements. Mr. Cornman assisted me this fall in picking out the cockerels which were satisfactory to use as breeders. These cockerels were marked with numbered bands and will be advertised in a State list. They are known as accredited cockerels. We have about 250 of these in the county. Thirty flocks are enrolled for the coming year in addition to a club of 5 members who are taking second year work. The accredited flock work project is valuable because it carried the flock through 5 years of continuous improvement. - L. C. Christie, County Agent, Hebron, Thayer County.

Nevada

The extension service is encouraging a system of accredited poultry flocks. This has been a necessity as the result of the large number of inquiries for bred-to-lay hatching eggs. At present over 100,000 baby chicks

are shipped into Nevada each year from other States. The accredited flock plan will make it possible for hatcheries to locate in Nevada with a guarantee of good stock from which to purchase eggs. Each accredited flock is listed with county agents so that any person wishing to get good hatching eggs can secure the address of persons having these for sale. The plan is somewhat as follows: Any poultryman may have his flock accredited by complying with the accredited standard, provided the hens are of one standard breed and have been inspected by a representative of the extension service. The hens must be mated with males that are directly descended from trap-nested hens producing 200 or more eggs in one year. The males must be of the same variety, breed, and class as the hens and must be individuals that would not be disqualified in the show ring. - Thomas Buckman, County Agent, Yerington, Lyon County.

New York

After four years of experience with the certification of poultry by the college as an educational demonstration, the administration of the project was taken over by the New York State Cooperative Poultry Certification Association, Inc. The transfer was made in Farmers' Week, when the proposal was unanimously approved by poultrymen representing practically every section of the State and an ownership of 89,000 hens. This organization, which is made up exclusively of poultrymen whose fowls are certified each year, has assumed the financial responsibilities for the certification of breeding birds and of advertising them, and soon expects to conduct for its members numerous substations for cooperative trap nesting, pedigree breeding, and hatching. The distinctive feature of this breed-improvement project, as compared with an egg-laying contest, is that it simplified and reduces the labor and the cost of pedigree breeding by reducing to a minimum the number of birds to be trapped and by increasing to a maximum the quality of the birds to be trapped by culling the least desirable birds to be pedigree-bred. The superior value of certified stock and the improvement in size and productivity of the progeny, clearly account for the willingness of poultrymen to pay for a service which for several years had been paid for largely by the college. As an educational demonstration, the college has certified each year for four years an increasing number of fowls for breeding purposes. During the 1922 season, 6 men certified fowls on the farms of 160 members of the cooperative certification association distributed over 49 counties. They examined 76,027 birds; of these, 25,458 hens and 4,282 males were certified. - J. E. Rice, Extension Poultryman, State College of Agriculture, Cornell University, Ithaca.

Certification has been continued this year with a smaller number of flocks, due to a readjustment in the policy of certification. The largest hatchery in the county this year will breed entirely with certified males and is carrying 189 certified females. All of the chicks which go out from this farm will carry at least 50 per cent certified blood, and about 10 per cent will carry 100 per cent certified blood. Considering the rapidity with which chickens reproduce, this work is having an effect in building up production flocks which cannot be measured but is comparable to the progress which has been made in breeding cattle over a considerable period of years. In order to give intensive, specific instruction to breeders in selecting individual fowls, two 1-day judging schools were held attended by 45 breeders, a number somewhat too large for the work. - F. H. Lacy, County Agent, Poughkeepsie, Dutchess County.

Vermont

Certification of poultry is progressing. We plan to supervise the work for a year or two only, until there are enough owners of certified flocks to form an effective association of certified breeders which will take over the work. There has been an increase over last year of about 50 per cent in the number of flocks certified and about 150 per cent in the number of birds banded. Over 5,000 fowls have been handled and about 2,000 males and females certified and banded. It is interesting to note that 90 per cent of those who had flocks certified in 1921, had them recertified. This facilitates the work and accounts for the large percentage certified this year. Plans are already under way and applications are signed for the certification of many flocks in 1923 for the third consecutive year. - H. A. D. Leggett, Extension Poultryman, College of Agriculture, University of Vermont, Burlington.

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